



LANDAU
ASSOCIATES,
INC.

Geoenvironmental Engineering and Technologies

Colbert
COLSF 7-1 V1

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AUG 22 1989
SUPERFUND BRANCH

August 21, 1989

Mr. Dan Weis
Water Resources Program
Washington State Department of Ecology
Eastern Regional Office
North 4601 Monroe, Suite 100
Spokane, WA 99205-1295

RE: REQUEST FOR VARIANCE MONITORING WELL CONSTRUCTION

Dear Mr. Weis:

Landau Associates, Inc. is preparing to commence monitoring well installation at the Colbert Landfill site on August 28, 1989. Recent communication with Mr. Mike Blum of Ecology (Landau Associates' communication between Mr. Brian Butler and Mr. Mike Blum, August 18, 1989) indicates that a variance is required by Ecology for the annular space sealants proposed for the Colbert project.

We are requesting a variance to the Minimum Standards for Construction and Maintenance of Wells (Chapter 173-160 WAC). WAC 173-160-550 (2) requires sealing the annular space with "...bentonite or bentonite-cement sealant, which has a weight in the range of 11 to 13 pounds per gallon..." This weight range is greater than the weights of bentonite grouts proposed for use in monitoring well construction (well construction diagram attached).

The basis for our request for variance, as provided by WAC 173-160-550 (3), is that the use of Pure Gold Grout and Volclay Grout (manufactured by American Colloid Company) will provide an equivalent or better level of protection than the regulation requires, when mixed in accordance with the manufacturer's instructions and installed with a tremie tube. American Colloid recommends that Volclay Grout be mixed to 9.4 pounds per gallon and Pure Gold Grout be mixed to 10.2 pounds per gallon. Additionally,



the manufacturer recommends that the weight of grouts be checked in the field prior to installation using a mud balance. U.S. Environmental Protection Agency, Region 10, and Ecology representatives are supportive of the proposed monitoring well design (Ecology letter from Mr. Mike Blum, Ecology, to Mr. Dean Fowler, Spokane County [cc Ted Olson, Ecology, Spokane], dated August 17, 1989).

The first phase of this project includes the installation of up to 27 monitoring wells. We propose the use of Volclay and Pure Gold Grouts on all of these installations and are requesting a variance to cover construction of each of these wells. Due to the short lead time of this request, we would prefer to receive verbal notification to avoid delay on this investigation task, with a subsequent follow-up letter.

Should you need further information, or wish to discuss this request, please contact me or Mr. Larry Beard at Landau Associates, Inc. (206) 778-0907. Your prompt reply to this request will be appreciated.

Very truly yours,

LANDAU ASSOCIATES, INC.

By:



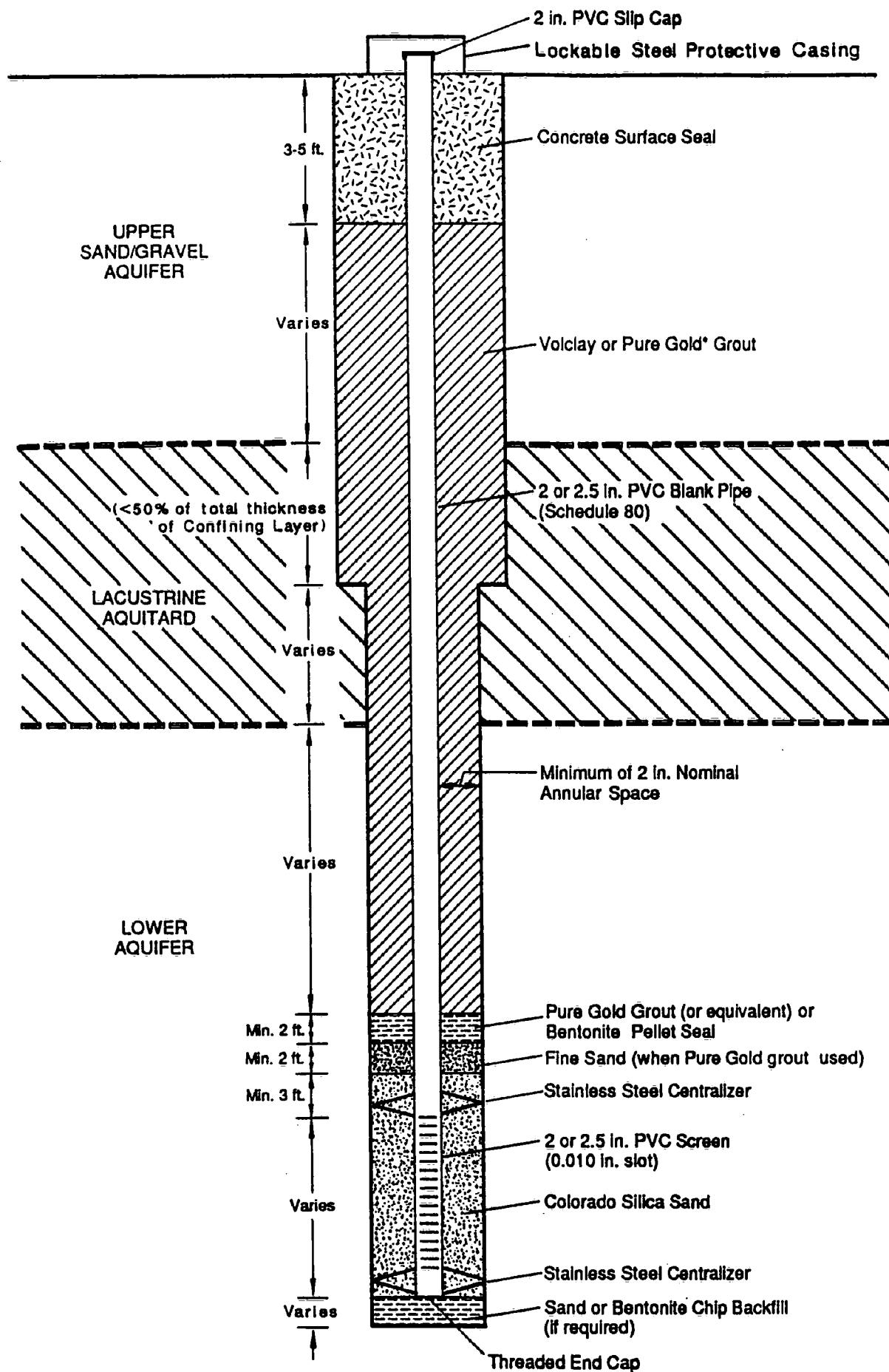
Brian F. Butler
Project Geologist

BFB/ds

cc: Mr. Mike Blum, Ecology, Olympia
Mr. Neal Thompson, EPA
Mr. Bill Miller, Ecology, Olympia

No. 124-01.2

21 August 89



* Volclay and Pure Gold are American Colloid brand names.

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Typical Monitoring Well Design
Lower Aquifer